

Notice of Allowability

Application No.

10/759,284

Examiner

Melissa J Koval

Applicant(s)

TAKEZAWA ET AL.

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Preliminary Amendment of June 4, 2004.
2. ☒ The allowed claim(s) is/are 17-33 (now renumbered 1-17).
3. ☒ The drawings filed on 20 January 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 0104
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Rodney Fuller
Primary Examiner

R. Fuller

Allowable Subject Matter

Claims 17-33 (now renumbered 1-17) are allowed.

The following is an examiner's statement of reasons for allowance:

The prior art of record neither shows nor suggests a projector having all of the elements of claim 17 and in particular:

“an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system, and the rock crystal member being disposed in such a manner that a Z axis of the rock crystal is set to be substantially parallel to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially perpendicular to a center axis of a light passing through the rock crystal member.”

The prior art of record neither shows nor suggests a projector having all of the elements of claim 20 and in particular:

“an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system, wherein the rock crystal member is disposed in such a manner that a Z axis of the rock crystal is set to be substantially perpendicular to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially parallel to a center axis of a light passing through the rock crystal member.”

The prior art of record neither shows nor suggests a projector having all of the elements of claim 22 and in particular:

“an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system, and the rock crystal member being disposed in such a manner that a Z axis of the rock crystal is set to be substantially parallel to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially perpendicular to a center axis of a light passing through the rock crystal member.”

The prior art of record neither shows nor suggests a projector having all of the elements of claim 25 and in particular:

“an optical component having a rock crystal member composed of rock crystal, the optical component being located in an optical path including the illumination optical system and the projection optical system,

wherein the rock crystal member is disposed in such a manner that a Z axis of the rock crystal is set to be substantially perpendicular to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially parallel to a center axis of a light passing through the rock crystal.”

The prior art of record neither shows nor suggests a projector having all of the elements of claim 27 and in particular:

“the optical component comprises:

a rock crystal member composed of rock crystal; and

a selector film formed on the rock crystal member to select light having wavelength in a predetermined range, wherein the rock crystal member is disposed in such a manner that a Z axis of the rock crystal is set to be substantially parallel to a surface of the rock crystal member and that the Z axis of the rock crystal is substantially perpendicular to a center axis of a light passing through the rock crystal member."

The prior art of record neither shows nor suggests a projector having all of the elements of claim 28 and in particular:

"an optical component having a rock crystal substrate composed of rock crystal and a polarizing plate provided on the rock crystal substrate, the optical component being located in an optical path including the illumination optical system and the projection optical system."

The prior art of record neither shows nor suggests a projector having all of the elements of claim 31 and in particular:

"wherein the electro-optical device has a pair of substrates, at least one of the pair of substrate is a rock crystal substrate composed of rock crystal."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ito et al. U.S. Patent 6,529,224 B2 teaches an optical reflection polarizer and projector comprising the same.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa J Koval whose telephone number is (571) 272-2121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571)272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJK

Rodney Fuller
Primary Examiner

